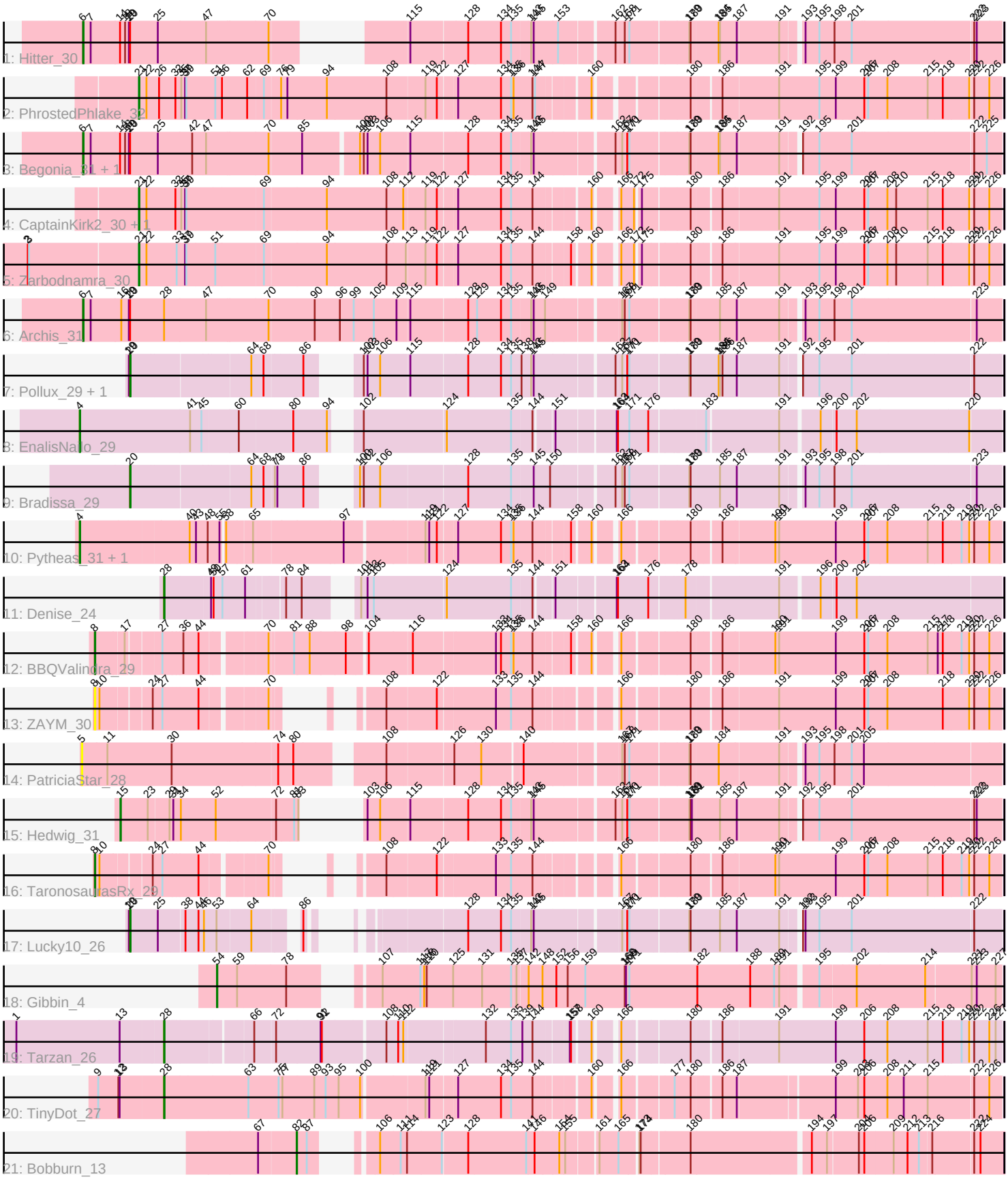
Pham 344315


1: Hitter_30
2: PhrostedPhlake_32
3: Begonia_31 + 1
4: CaptainKirk2_30 + 1
5: Zarbodnamra_30
6: Archis_31
7: Pollux_29 + 1
8: EnalisNallo_29
9: Bradissa_29
10: Pytheas_31 + 1
11: Denise_24
12: BBQValindra_29
13: ZAYM_30
14: PatriciaStar_28
15: Hedwig_31
16: TaronosaurasRx_29
17: Lucky10_26
18: Gibbin_4
19: Tarzan_26
20: TinyDot_27
21: Bobburn_13

Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 344315 Report

This analysis was run 11/14/26 on database version 672.

Pham number 344315 has 25 members, 2 are drafts.

Phages represented in each track:
- Track 1 : Hitter_30
- Track 2 : PhrostedPhlake_32
- Track 3 : Begonia_31, Malachai_31
- Track 4 : CaptainKirk2_30, Delian_31
- Track 5 : Zarbodnamra_30
- Track 6 : Archis_31
- Track 7 : Pollux_29, Floral_29
- Track 8 : EnalisNailo_29
- Track 9 : Bradissa_29
- Track 10 : Pytheas_31, Jablanski_31
- Track 11 : Denise_24
- Track 12 : BBQValindra_29
- Track 13 : ZAYM_30
- Track 14 : PatriciaStar_28
- Track 15 : Hedwig_31
- Track 16 : TaronosaurasRx_29
- Track 17 : Lucky10_26
- Track 18 : Gibbin_4
- Track 19 : Tarzan_26
- Track 20 : TinyDot_27
- Track 21 : Bobburn_13

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 20, it was called in 4 of the 23 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- Bradissa_29, Floral_29, Lucky10_26, Pollux_29,

Genes that have the "Most Annotated" start but do not call it:
- Archis_31, Begonia_31, Hitter_30, Malachai_31,

Genes that do not have the "Most Annotated" start:

• BBQValindra_29, Bobburn_13, CaptainKirk2_30, Delian_31, Denise_24, EnalisNailo_29, Gibbin_4, Hedwig_31, Jablanski_31, PatriciaStar_28, PhrostedPhlake_32, Pytheas_31, TaronosaurasRx_29, Tarzan_26, TinyDot_27, ZAYM_30, Zarbodnamra_30,

Summary by start number:

Start 4:
• Found in 3 of 25 (12.0%) of genes in pham
• Manual Annotations of this start: 3 of 23
• Called 100.0% of time when present
• Phage (with cluster) where this start called: EnalisNailo_29 (CY1), Jablanski_31 (CY3), Pytheas_31 (CY3),

Start 5:
• Found in 1 of 25 (4.0%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: PatriciaStar_28 (DB),

Start 6:
• Found in 4 of 25 (16.0%) of genes in pham
• Manual Annotations of this start: 4 of 23
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Archis_31 (CV), Begonia_31 (CV), Hitter_30 (CV), Malachai_31 (CV),

Start 8:
• Found in 3 of 25 (12.0%) of genes in pham
• Manual Annotations of this start: 2 of 23
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BBQValindra_29 (DB), TaronosaurasRx_29 (DB), ZAYM_30 (DB),

Start 15:
• Found in 1 of 25 (4.0%) of genes in pham
• Manual Annotations of this start: 1 of 23
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Hedwig_31 (DB),

Start 20:
• Found in 8 of 25 (32.0%) of genes in pham
• Manual Annotations of this start: 4 of 23
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Bradissa_29 (CY1), Floral_29 (CY1), Lucky10_26 (DH), Pollux_29 (CY1),

Start 21:
• Found in 4 of 25 (16.0%) of genes in pham
• Manual Annotations of this start: 4 of 23
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CaptainKirk2_30 (CV), Delian_31 (CV), PhrostedPhlake_32 (CV), Zarbodnamra_30 (CV),

Start 28:
• Found in 4 of 25 (16.0%) of genes in pham
• Manual Annotations of this start: 3 of 23
• Called 75.0% of time when present
• Phage (with cluster) where this start called: Denise_24 (CZ5), Tarzan_26 (DY), TinyDot_27 (singleton),

Start 54:
• Found in 1 of 25 (4.0%) of genes in pham
• Manual Annotations of this start: 1 of 23
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gibbin_4 (DV),

Start 82:
• Found in 1 of 25 (4.0%) of genes in pham
• Manual Annotations of this start: 1 of 23
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bobburn_13 (singleton),

Summary by clusters:

There are 9 clusters represented in this pham: CY3, singleton, DH, DB, CY1, CZ5, DY, DV, CV,

Info for manual annotations of cluster CV:
•Start number 6 was manually annotated 4 times for cluster CV.
•Start number 21 was manually annotated 4 times for cluster CV.

Info for manual annotations of cluster CY1:
•Start number 4 was manually annotated 1 time for cluster CY1.
•Start number 20 was manually annotated 3 times for cluster CY1.

Info for manual annotations of cluster CY3:
•Start number 4 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CZ5:
•Start number 28 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster DB:
•Start number 8 was manually annotated 2 times for cluster DB.
•Start number 15 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DH:
•Start number 20 was manually annotated 1 time for cluster DH.

Info for manual annotations of cluster DV:
•Start number 54 was manually annotated 1 time for cluster DV.

Info for manual annotations of cluster DY:
•Start number 28 was manually annotated 1 time for cluster DY.

Gene Information:

Gene: Archis_31 Start: 25439, Stop: 27490, Start Num: 6
Candidate Starts for Archis_31:
(Start: 6 @25439 has 4 MA's), (7, 25457), (16, 25529), (19, 25547), (Start: 20 @25550 has 4 MA's), (Start: 28 @25631 has 3 MA's), (47, 25727), (70, 25871), (90, 25976), (96, 26036), (99, 26069), (105, 26117), (109, 26171), (115, 26195), (128, 26324), (129, 26342), (134, 26399), (135, 26423), (143, 26465), (145, 26471), (149, 26498), (167, 26657), (168, 26663), (171, 26672), (179, 26798), (180, 26801), (185, 26867), (187, 26906), (191, 27002), (193, 27044), (195, 27077), (198, 27113), (201, 27152), (223, 27437),

Gene: BBQValindra_29 Start: 24300, Stop: 26213, Start Num: 8
Candidate Starts for BBQValindra_29:
(Start: 8 @24300 has 2 MA's), (17, 24360), (27, 24432), (36, 24477), (44, 24513), (70, 24642), (81, 24693), (88, 24729), (98, 24813), (104, 24852), (116, 24951), (133, 25137), (134, 25149), (135, 25173), (136, 25179), (144, 25224), (158, 25302), (160, 25341), (166, 25383), (180, 25518), (186, 25578), (190, 25698), (191, 25707), (199, 25839), (206, 25902), (207, 25911), (208, 25956), (215, 26052), (217, 26073), (218, 26085), (219, 26127), (220, 26145), (222, 26151), (226, 26187),

Gene: Begonia_31 Start: 25691, Stop: 27724, Start Num: 6
Candidate Starts for Begonia_31:
(Start: 6 @25691 has 4 MA's), (7, 25709), (14, 25778), (18, 25790), (19, 25799), (Start: 20 @25802 has 4 MA's), (25, 25868), (42, 25949), (47, 25979), (70, 26123), (85, 26198), (100, 26321), (102, 26330), (103, 26339), (106, 26366), (115, 26429), (128, 26558), (134, 26633), (135, 26657), (143, 26699), (145, 26705), (162, 26879), (167, 26891), (170, 26903), (171, 26906), (179, 27032), (180, 27035), (184, 27098), (185, 27101), (187, 27140), (191, 27236), (192, 27272), (195, 27311), (201, 27386), (222, 27665), (225, 27695),

Gene: Bobburn_13 Start: 10237, Stop: 11706, Start Num: 82
Candidate Starts for Bobburn_13:
(67, 10150), (Start: 82 @10237 has 1 MA's), (87, 10261), (106, 10330), (111, 10378), (114, 10393), (123, 10474), (128, 10531), (141, 10666), (146, 10684), (154, 10741), (155, 10753), (161, 10819), (165, 10864), (173, 10903), (174, 10906), (180, 11011), (194, 11275), (197, 11311), (204, 11380), (206, 11392), (209, 11458), (212, 11491), (213, 11518), (216, 11545), (222, 11635), (224, 11650),

Gene: Bradissa_29 Start: 24722, Stop: 26545, Start Num: 20
Candidate Starts for Bradissa_29:
(Start: 20 @24722 has 4 MA's), (64, 24983), (68, 25010), (71, 25031), (73, 25037), (86, 25094), (100, 25142), (102, 25151), (106, 25187), (128, 25379), (135, 25478), (145, 25526), (150, 25565), (162, 25700), (167, 25712), (168, 25718), (171, 25727), (179, 25853), (180, 25856), (185, 25922), (187, 25961), (191, 26057), (193, 26099), (195, 26132), (198, 26168), (201, 26207), (223, 26492),

Gene: CaptainKirk2_30 Start: 25252, Stop: 27144, Start Num: 21
Candidate Starts for CaptainKirk2_30:
(Start: 21 @25252 has 4 MA's), (22, 25270), (32, 25339), (35, 25351), (37, 25360), (39, 25363), (69, 25540), (94, 25684), (108, 25825), (112, 25864), (119, 25912), (122, 25939), (127, 25978), (134, 26080), (135, 26104), (144, 26155), (160, 26272), (166, 26314), (172, 26341), (175, 26350), (180, 26449), (186, 26509), (191, 26638), (195, 26734), (199, 26770), (206, 26833), (207, 26842), (208, 26887), (210, 26908), (215, 26983), (218, 27016), (220, 27076), (222, 27082), (226, 27118),

Gene: Delian_31 Start: 25250, Stop: 27142, Start Num: 21
Candidate Starts for Delian_31:

(Start: 21 @25250 has 4 MA's), (22, 25268), (32, 25337), (35, 25349), (37, 25358), (39, 25361), (69, 25538), (94, 25682), (108, 25823), (112, 25862), (119, 25910), (122, 25937), (127, 25976), (134, 26078), (135, 26102), (144, 26153), (160, 26270), (166, 26312), (172, 26339), (175, 26348), (180, 26447), (186, 26507), (191, 26636), (195, 26732), (199, 26768), (206, 26831), (207, 26840), (208, 26885), (210, 26906), (215, 26981), (218, 27014), (220, 27074), (222, 27080), (226, 27116),

Gene: Denise_24 Start: 21110, Stop: 22873, Start Num: 28
Candidate Starts for Denise_24:
(Start: 28 @21110 has 3 MA's), (49, 21212), (50, 21218), (57, 21239), (61, 21290), (78, 21368), (84, 21398), (101, 21476), (103, 21488), (105, 21503), (124, 21671), (135, 21824), (144, 21866), (151, 21905), (163, 22034), (164, 22037), (176, 22109), (178, 22184), (191, 22388), (196, 22469), (200, 22502), (202, 22547),

Gene: EnalisNailo_29 Start: 24724, Stop: 26721, Start Num: 4
Candidate Starts for EnalisNailo_29:
(Start: 4 @24724 has 3 MA's), (41, 24985), (45, 25012), (60, 25096), (80, 25219), (94, 25297), (102, 25327), (124, 25519), (135, 25672), (144, 25714), (151, 25753), (163, 25882), (164, 25885), (171, 25912), (176, 25957), (183, 26074), (191, 26236), (196, 26317), (200, 26350), (202, 26395), (220, 26656),

Gene: Floral_29 Start: 24575, Stop: 26398, Start Num: 20
Candidate Starts for Floral_29:
(19, 24572), (Start: 20 @24575 has 4 MA's), (64, 24836), (68, 24863), (86, 24947), (102, 25004), (103, 25013), (106, 25040), (115, 25103), (128, 25232), (134, 25307), (135, 25331), (138, 25352), (143, 25373), (145, 25379), (162, 25553), (167, 25565), (170, 25577), (171, 25580), (179, 25706), (180, 25709), (184, 25772), (185, 25775), (186, 25781), (187, 25814), (191, 25910), (192, 25946), (195, 25985), (201, 26060), (222, 26339),

Gene: Gibbin_4 Start: 3409, Stop: 5115, Start Num: 54
Candidate Starts for Gibbin_4:
(Start: 54 @3409 has 1 MA's), (59, 3457), (78, 3565), (107, 3700), (117, 3790), (118, 3799), (120, 3805), (125, 3868), (131, 3937), (135, 4006), (137, 4015), (142, 4039), (148, 4072), (152, 4105), (156, 4132), (159, 4174), (168, 4267), (169, 4270), (171, 4276), (182, 4438), (188, 4561), (189, 4615), (191, 4627), (195, 4702), (202, 4783), (214, 4942), (221, 5047), (223, 5059), (227, 5104),

Gene: Hedwig_31 Start: 25332, Stop: 27116, Start Num: 15
Candidate Starts for Hedwig_31:
(Start: 15 @25332 has 1 MA's), (23, 25392), (29, 25437), (31, 25446), (34, 25464), (52, 25545), (72, 25674), (81, 25713), (83, 25722), (103, 25731), (106, 25758), (115, 25821), (128, 25950), (134, 26025), (135, 26049), (143, 26091), (145, 26097), (162, 26271), (167, 26283), (170, 26295), (171, 26298), (179, 26424), (180, 26427), (181, 26430), (185, 26493), (187, 26532), (191, 26628), (192, 26664), (195, 26703), (201, 26778), (222, 27057), (223, 27063),

Gene: Hitter_30 Start: 25228, Stop: 27120, Start Num: 6
Candidate Starts for Hitter_30:
(Start: 6 @25228 has 4 MA's), (7, 25246), (14, 25315), (18, 25327), (19, 25336), (Start: 20 @25339 has 4 MA's), (25, 25405), (47, 25516), (70, 25660), (115, 25825), (128, 25954), (134, 26029), (135, 26053), (143, 26095), (145, 26101), (153, 26158), (162, 26275), (168, 26293), (171, 26302), (179, 26428), (180, 26431), (184, 26494), (185, 26497), (187, 26536), (191, 26632), (193, 26674), (195, 26707), (198, 26743), (201, 26782), (222, 27061), (223, 27067),

Gene: Jablanski_31 Start: 25723, Stop: 27699, Start Num: 4
Candidate Starts for Jablanski_31:

(Start: 4 @25723 has 3 MA's), (40, 25969), (43, 25984), (48, 26011), (55, 26032), (58, 26038), (65, 26095), (97, 26296), (119, 26467), (121, 26476), (122, 26494), (127, 26533), (134, 26635), (135, 26659), (136, 26665), (144, 26710), (158, 26788), (160, 26827), (166, 26869), (180, 27004), (186, 27064), (190, 27184), (191, 27193), (199, 27325), (206, 27388), (207, 27397), (208, 27442), (215, 27538), (218, 27571), (219, 27613), (220, 27631), (222, 27637), (226, 27673),

Gene: Lucky10_26 Start: 22139, Stop: 23872, Start Num: 20
Candidate Starts for Lucky10_26:
(19, 22136), (Start: 20 @22139 has 4 MA's), (25, 22199), (38, 22256), (44, 22283), (46, 22295), (53, 22322), (64, 22397), (86, 22475), (128, 22709), (134, 22784), (135, 22808), (143, 22847), (145, 22853), (167, 23039), (170, 23051), (171, 23054), (179, 23180), (180, 23183), (185, 23249), (187, 23288), (191, 23384), (192, 23420), (193, 23426), (195, 23459), (201, 23534), (222, 23813),

Gene: Malachai_31 Start: 25691, Stop: 27724, Start Num: 6
Candidate Starts for Malachai_31:
(Start: 6 @25691 has 4 MA's), (7, 25709), (14, 25778), (18, 25790), (19, 25799), (Start: 20 @25802 has 4 MA's), (25, 25868), (42, 25949), (47, 25979), (70, 26123), (85, 26198), (100, 26321), (102, 26330), (103, 26339), (106, 26366), (115, 26429), (128, 26558), (134, 26633), (135, 26657), (143, 26699), (145, 26705), (162, 26879), (167, 26891), (170, 26903), (171, 26906), (179, 27032), (180, 27035), (184, 27098), (185, 27101), (187, 27140), (191, 27236), (192, 27272), (195, 27311), (201, 27386), (222, 27665), (225, 27695),

Gene: PatriciaStar_28 Start: 24740, Stop: 26734, Start Num: 5
Candidate Starts for PatriciaStar_28:
(5, 24740), (11, 24800), (30, 24953), (74, 25199), (80, 25235), (108, 25400), (126, 25547), (130, 25607), (140, 25691), (167, 25898), (168, 25904), (171, 25913), (179, 26042), (180, 26045), (184, 26108), (191, 26246), (193, 26288), (195, 26321), (198, 26357), (201, 26396), (205, 26423),

Gene: PhrostedPhlake_32 Start: 25921, Stop: 27813, Start Num: 21
Candidate Starts for PhrostedPhlake_32:
(Start: 21 @25921 has 4 MA's), (22, 25939), (26, 25969), (32, 26008), (35, 26020), (37, 26029), (39, 26032), (51, 26098), (56, 26113), (62, 26173), (69, 26209), (76, 26245), (79, 26260), (94, 26353), (108, 26494), (119, 26581), (122, 26608), (127, 26647), (134, 26749), (135, 26773), (136, 26779), (144, 26824), (147, 26830), (160, 26941), (180, 27118), (186, 27178), (191, 27307), (195, 27403), (199, 27439), (206, 27502), (207, 27511), (208, 27556), (215, 27652), (218, 27685), (220, 27745), (222, 27751), (226, 27787),

Gene: Pollux_29 Start: 24575, Stop: 26398, Start Num: 20
Candidate Starts for Pollux_29:
(19, 24572), (Start: 20 @24575 has 4 MA's), (64, 24836), (68, 24863), (86, 24947), (102, 25004), (103, 25013), (106, 25040), (115, 25103), (128, 25232), (134, 25307), (135, 25331), (138, 25352), (143, 25373), (145, 25379), (162, 25553), (167, 25565), (170, 25577), (171, 25580), (179, 25706), (180, 25709), (184, 25772), (185, 25775), (186, 25781), (187, 25814), (191, 25910), (192, 25946), (195, 25985), (201, 26060), (222, 26339),

Gene: Pytheas_31 Start: 25722, Stop: 27698, Start Num: 4
Candidate Starts for Pytheas_31:
(Start: 4 @25722 has 3 MA's), (40, 25968), (43, 25983), (48, 26010), (55, 26031), (58, 26037), (65, 26094), (97, 26295), (119, 26466), (121, 26475), (122, 26493), (127, 26532), (134, 26634), (135, 26658), (136, 26664), (144, 26709), (158, 26787), (160, 26826), (166, 26868), (180, 27003), (186, 27063), (190, 27183), (191, 27192), (199, 27324), (206, 27387), (207, 27396), (208, 27441), (215, 27537), (218, 27570), (219, 27612), (220, 27630), (222, 27636), (226, 27672),

Gene: TaronosaurasRx_29 Start: 24667, Stop: 26418, Start Num: 8
Candidate Starts for TaronosaurasRx_29:
(Start: 8 @24667 has 2 MA's), (10, 24676), (24, 24781), (27, 24799), (44, 24880), (70, 25009), (108, 25099), (122, 25213), (133, 25342), (135, 25378), (144, 25429), (166, 25588), (180, 25723), (186, 25783), (190, 25903), (191, 25912), (199, 26044), (206, 26107), (207, 26116), (208, 26161), (215, 26257), (218, 26290), (219, 26332), (220, 26350), (222, 26356), (226, 26392),

Gene: Tarzan_26 Start: 21313, Stop: 23103, Start Num: 28
Candidate Starts for Tarzan_26:
(1, 20977), (13, 21220), (Start: 28 @21313 has 3 MA's), (66, 21499), (72, 21538), (91, 21643), (92, 21646), (108, 21784), (110, 21811), (112, 21823), (132, 22003), (135, 22063), (139, 22090), (144, 22114), (157, 22189), (158, 22192), (160, 22231), (166, 22273), (180, 22408), (186, 22468), (191, 22597), (199, 22729), (206, 22792), (208, 22846), (215, 22942), (218, 22975), (219, 23017), (220, 23035), (222, 23041), (226, 23077), (227, 23092),

Gene: TinyDot_27 Start: 21466, Stop: 23274, Start Num: 28
Candidate Starts for TinyDot_27:
(9, 21319), (12, 21364), (13, 21367), (Start: 28 @21466 has 3 MA's), (63, 21661), (75, 21733), (77, 21742), (89, 21817), (93, 21844), (95, 21874), (100, 21922), (119, 22060), (121, 22069), (127, 22126), (134, 22228), (135, 22252), (144, 22303), (160, 22420), (166, 22462), (177, 22561), (180, 22597), (186, 22657), (187, 22690), (199, 22900), (203, 22948), (206, 22963), (208, 23017), (211, 23056), (215, 23113), (222, 23212), (226, 23248),

Gene: ZAYM_30 Start: 25127, Stop: 26878, Start Num: 8
Candidate Starts for ZAYM_30:
(Start: 8 @25127 has 2 MA's), (10, 25136), (24, 25241), (27, 25259), (44, 25340), (70, 25469), (108, 25559), (122, 25673), (133, 25802), (135, 25838), (144, 25889), (166, 26048), (180, 26183), (186, 26243), (191, 26372), (199, 26504), (206, 26567), (207, 26576), (208, 26621), (218, 26750), (220, 26810), (222, 26816), (226, 26852),

Gene: Zarbodnamra_30 Start: 25272, Stop: 27164, Start Num: 21
Candidate Starts for Zarbodnamra_30:
(2, 25014), (3, 25017), (Start: 21 @25272 has 4 MA's), (22, 25290), (33, 25362), (37, 25380), (39, 25383), (51, 25449), (69, 25560), (94, 25704), (108, 25845), (113, 25890), (119, 25932), (122, 25959), (127, 25998), (134, 26100), (135, 26124), (144, 26175), (158, 26253), (160, 26292), (166, 26334), (172, 26361), (175, 26370), (180, 26469), (186, 26529), (191, 26658), (195, 26754), (199, 26790), (206, 26853), (207, 26862), (208, 26907), (210, 26928), (215, 27003), (218, 27036), (220, 27096), (222, 27102), (226, 27138),